

Remarks

In the Specification

None.

Rejections Under 35 USC 102

5 Claims 1-3 stand rejected under 35 USC Section 102(b) as being described previously in view of *Sincock* (U.S. 3,900,120) hereafter referred to as '120. With respect to claims 1-3, Examiner cites '120, stating that it discloses a bottle comprising:

1. a hollow, cylindrical-shaped bottle (Fig. 1, #10 and col. 5, ll. 13-42);
2. an open ended mouth-forming portion (Fig. 1, #26 and col. 5, ll. 24-27);
- 10 3. an intermediate body-forming portion (Fig. 1, #22 and col. 5, ll. 15-17); and
4. a closed, hemispherical-shaped based-forming portion (Fig. 1, #20 and col. 5, ll. 3-8);
5. a bottle wherein the body-forming portion has constant outer and constant inner diameters (Fig. 1, #10, col. 5, ll.5-16 and col. 8, ll. 3-8); and
- 15 6. a bottle wherein the body-forming, base forming, and mouth forming portions have a minimum wall thickness of 1.5mm and maximum wall thickness of 4mm (col. 8, ll. 45-53).

Applicant would like to emphasize the differences between the present application and the teaching of '120. The teaching of '120 is for a 'preform'. A preform is the predecessor to a
20 bottle. The preform taught by '120 looks similar to the present invention, but a preform is neither suitable nor practical for use as a container until it is blown into a larger bottle. The present invention is for a bottle that is suitable and practical as a container and specifically not a preform for forming pressurized containers as taught by '120.

The purpose of the invention in '120 is to create a preform that is suitable for later
25 stretching and blowing into a bottle having a larger volume capacity and thinner walls. The purpose of the present invention is to create a container that is in a finished form suitable for use as a beverage container and suitable for consumer handling. The present invention will not and cannot be used as a preform for stretching and blowing into a bottle exhibiting a larger volume

capacity and thinner walls. Likewise, the invention in '120 is not fit for consumer use and consumer handling without modifications to (a) the nub at the closed-end portion and (b) the wall thickness.

While it is not disclosed or illustrated in '120, a sharp plastic nub is produced at the bottom of the closed-end portion of the invention taught by '120, also known as the 'gate'. This is the result of the process used to create preforms. In contrast, the present invention has a small indentation at the location where the gate of a preform would have existed. After the blowing process the gate of the preform taught by '120 is reduced and often located in a concave bottom side of the blown bottle or in a recess so that the item is suitable for consumer handling.

Preforms such as those taught by '120 are not suitable for consumer use or handling due to the gate that must exist to provide the additional material necessary for the blowing process. If one were to use the preform taught by '120 as a consumer bottle, they would be at a great disadvantage in the market place from a manufacturing cost perspective. The additional material in wall thickness and within the gate required for a preform that is intended to be blow into a bottle greatly increased the cost of the raw materials necessary to produce the bottle taught by the present invention and leads to a large amount of waste. This increased manufacturing cost adds to the retail and market price of the bottle.

Additionally, if one were to use other preforms known in the industry where the gate is in the form of a sharp plastic nub it would be a hazard to consumers as the sharp nub could cause physical damage by scratching other objects or getting caught on clothes in addition to potentially causing personal injury to humans by scratch or puncture. The only option one would have would be to grind off the sharp plastic nub that would also lead to an increased production cost, mess, and waste of raw materials.

Additionally, the inner and outer diameters of the invention taught by '120 are tapered, as shown in Fig. 4, #21. Examiner cites Fig. 1, #10, col. 5, II. 5-16 and col. 8, II. 3-8 of '120 as teaching a constant outer and inner diameter, but the wall thickness, particularly toward the bottom of the preform, must be greater than the thickness near the top of the body in order to allow for the extra material needed in the bottom of the finished container after it has been heated, stretched and blown.

When a preform is stretched and blown into its finished form (i.e. a bottle having a larger volume capacity and thinner walls), a greater abundance of plastic material is required at the bottom of the preform to achieve a constant wall thickness in the finished product. Therefore, the wall thickness must be greater at the bottom of a preform, and thus there is an inconsistent inner and outer diameters through the body-forming portion. While this inconsistent wall thickness is necessary for a preform, it is unnecessary for the present invention because the present invention will not be blown and stretched into a larger capacity bottle. Specifically, the inner and outer diameters of the present invention's body-forming portion are constant because the present invention does not need to be stretched into a larger container.

With respect to claim 1, Applicant has cancelled the claim so further discussion or traverse of the rejection is moot.

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration and it is not enough that the prior art reference discloses all the claimed elements in isolation, rather anticipation requires disclosure as arranged in the claim. See. *W.L. Gore & Associates v. Garlock, Inc.* Further anticipation will not be found when the prior art is lacking or missing a specific feature or structure of the claimed invention. Here, as

previously discussed, '281 does not disclose the use of basin to secure the mirrored surface using compressive pressure from the side wall of a basin as claimed by Applicant.

With respect to claim 2, Applicant has amended claim 2 to include all the previous claim elements from claim 1, to which it previously depended, so that is now stands are the first
5 independent claim. Applicant has also amended claim 2 to include additional elements requiring that the bottom-forming portion, in addition to the walls has constant thickness and includes a small indentation at its center. Neither the constant thickness of the bottom hemispherical portion and a small indentation at the center of the bottom forming hemispherical portion are taught by '120. The addition of these new claim elements not taught or suggested by '120 but supported
10 by the application and explained in the previous discussion respectfully distinguish the present invention from the prior art and specifically '120.

With respect to the use limitation in claim 2: "for improved heat distribution during shrink sleeve application." The present invention needs constant inner and outer diameters so that the heat emanating from inside the vial is equally distributed along the entire length of the
15 vial. This allows our shrink sleeve (i.e. label) to shrink evenly. The preform in '120 does not have constant inner and outer diameters because (1) it does not need constant heat distribution since the preform is not a finished product, and (2) it *must* have more plastic near the bottom half of the preform to ultimately be blown into a larger volume bottle. Applicant has amended the language of claim 2 to remove the use limitation language in claim 2.

20 Applicant submits that the rejection to claim 2 has been successfully traversed and the claim is now in condition for allowance. Withdrawal of this rejection is respectfully requested.

With respect to claim 3, Applicant concedes that '120 teaches a preform that generally requires a wall thickness between 70 to 300 mils and that the conversion to 1.78 – 7.64 mm is

accurate. The preform in '120 does appear to provide a comparable wall thickness as cited by the Examiner, but the purpose is very different. The purpose of the wall thickness in '120 is to provide enough plastic material so that when the preform is *blown and stretched* into a larger bottle, there is enough material so that the finished container has a wall thickness that is a fraction of a millimeter. The purpose of the wall thickness of the present invention is to provide increased stress resistance, increased heat resistance, and an increased oxygen barrier. The present invention is able to achieve these benefits because the finished product *maintains a wall thickness between 1.5 and 4mm* – it is not stretched until the wall thickness becomes so thin that we would lose the aforementioned benefits as occurs with the preform taught by '120.

With respect to the use limitation in claim 3: “for increased stress resistance, increased heat resistance and increased oxygen barrier”. The present invention requires a wall thickness of between 1.5mm and 4mm to achieve these benefits. Applicant has amended the language of claim 3 to remove the use limitation language in claim 3.

Applicant submits that the rejection to claim 3 has been successfully traversed and the claim is now in condition for allowance. Withdrawal of this rejection is respectfully requested.

Rejections Under 35 USC 103

Claim 4 stands rejected under 35 USC Section 103(a) as being unpatentable over *Sincock* (U.S. 3,900,120) hereafter referred to as '120 in view of *Peronke et. al.* (U.S. 6,698,160) hereafter referred to as '160.

A prima face case of obviousness is established when an examiner provides:

1. one or more references
2. that were available to the inventor and
3. that teach
4. a suggestion to combine or modify the references,

5. the combination or modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art.

Accordingly, an applicant who is able to prove that the Examiner has failed to establish
5 any one of these elements will prevent the prima facie case of obviousness from being
established.

Here, Examiner alleged that '160 teaches the additional claim element of the present
invention in claim 4 for a polygonal-shaped flange perpendicular to the plane of the body-
forming portion and where each isometric outside surface of the flange is substantially straight
10 and used for holding and stabilizing said bottle during processing. Applicant concedes that '160
does teach a flange having seven sides (heptagon) at col. 18, ll. 30-32 and suggests that one can
use more or less walls and that they can or can not be straight, but '160 does not teach why the
use of additional walls or any advantage to straight or non-straight sides. Through testing,
Applicant has learned that there is a significant advantage for creating a bottle that consists of a
15 hemispherical bottle portion with a mouth portion that contains a polygonal-shaped flange
specifically with six sides and not the seven taught by '160.

In the present rejection Examiner, while having proper motivation for the use of a
specifically-shaped flange to inhibit or prevent rotation during capping is correct, Examiner has
failed to cite a suggestion to combine or modify the references, item 4 from above for
20 establishing a proper prima facie case of obviousness. Without a suggestion to combine or
modify the references it would be beyond the skill of one in the art to have any reason to utilize a
flange for the purpose of inhibiting or preventing rotation during capping on a preform such as
the one taught by '120 where it would serve no purpose in the process of pressuring a preform
into a container as there are no issues or problems identified by '120 with inhibiting or

preventing rotation during capping or even pressurization that would require or be solved by the use of such a flange.

Additionally, Without a suggestion to combine or modify the references it would be beyond the skill of one in the art to have any reason to utilize a flange for the purpose of inhibiting or preventing rotation during capping for use on a bottle with a hemispherical bottom portion as both bottles taught in '120 and '160 have substantially flat bottoms, see Fig. 3 of '120 and Figs. 6 & 7 of '160. As Applicant has previously discussed, there is a specific reason to utilize the flange claimed on a bottle with a hemispherical bottom for consumer use.

Finally, Applicant has also amended claim 4 to further narrow the claim element so that the polygonal-shaped flange must have six straight sides. This specific requirement for a hemispherical bottle in view of the lack of a suggestion to combine or modify the references successfully traverses Examiner's rejection and places the claim in condition for allowance.

Comments Regarding New Claims Submitted for Consideration

Applicant has included New Claim 5 in further attempts to narrow the claim language of the present invention in view of the cited prior art by presenting more detailed claim on the bottle flange of the present invention.

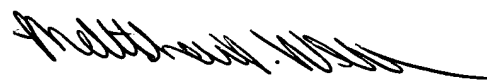
Applicant has also included New Claims 6-10 in an attempt to provide an independent claim tree and language of the present invention in view of the cited prior art by presenting more detailed claims on the system for processing, filling and capping a hollow, cylindrical-shaped bottle at high speeds which specifically requires the use of a bottle with a hemispherical bottom portion that can not freely stand on its own like a conventional bottle and requires the use of a bottle flange and jig device to enable and ensure proper processing and capping.

Conclusion

For all the reasons advanced above, Applicant respectfully submits that the application is in condition for allowance and that action is earnestly solicited.

5 In the event that an extension of time is required, or may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely.

Respectfully submitted,



MATTHEW T. WELKER
REGISTRATION NO. 53,756

Date: November 16, 2006

15 White-Welker & Welker, LLC
Customer No. 37,476
PO Box 199
Clear Spring, Maryland 21722-0199
O 410.507.2837
20 F 301.842.1141